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ABSTRACT

Study skills research has progressed within the past ten years from primary concern with overt and observable study behaviors to an examination of cognitive and motivational processes underlying student learning and achievement outcomes. However, there is still need for a more comprehensive approach which integrates the behavioral, cognitive and motivational perspectives. The importance of students' feelings in motivating behavior cannot be ignored, but as yet no instrument has integrated the question of students' emotional involvement in what they are studying. A group of educational psychologists has been developing the Self-Assessment Questionnaire (SAQ), which would be a complete study instrument, one that includes motivational as well as behavioral and cognitive dimensions. The SAQ avoids use of the words "skill" and "study" because these terms suggest something that is readily observed. The SAQ has been tested on a sample of black students and is intended to assess values especially important among blacks, including self-esteem, performance attribution, and anxiety. (KH)

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REVIEW OF THE PERSPECTIVES UNDERLYING STUDY SKILLS RESEARCH WITH SPECIAL EMPHASIS ON THREE MOTIVATIONAL DIMMENSIONS: SELF-ESTEEM, PERFORMANCE ATTRIBUTION AND ANXIETY: A RATIONALE FOR THE SELF-ASSESSMENT QUESTIONNAIRE (SAQ)

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Research on study skills has gained momentum in recent years. This reflects the increased recognition among educational psychologists that study skills is an important element in the total learning experience of students. This recognition is reflected in the suggestion by Rohwer (1984) that a sub-speciality within the field of Educational Psychology called "Educational Psychology of Studying" be created. Rohwer (1984) argued that academic learning and achievement result not only from instruction but also from studying, which is in effect the principal means of self education throughout life" (p.1). His assertion that "a coherent and visible psychology of studying has not yet been forged" (p.2) clearly underscores the major issue of this paper, which is that the existing research on studying and study skills, though extensive, has not adequately combined the major variables which have been shown to correlate significantly with learning outcomes, especially among minority students.. Although some researchers (e.g., Weinstein, 1982) have attempted to be more comprehensive in their approach and have moved to include items in their instruments which measure cognitive and motivational variables, there still exists a need for a more thorough and integrative approach, utilizing more complete and multifaceted instruments which are sensitive to the unique characteristics of minority students.

The existing research has approached examination of study skills from four basic perspectives. These perspectives are as follows:

1. Behavioral Perspective. The assumption of this perspective is that external or environmental conditions and observable behaviors may be associated with effective learning. Instruments have been developed to assess the extent to which these conditions and behaviors influence

learning. For example, assessments are made of students' management of time, notetaking skills, underlining strategies and selection of place and time to study.

Some instruments included under this perspective are:

1. Survery of Study Habits and Attitudes (SSHA), (Brown and Holtzman, 1967)

2. Colaifornia Study Metods Survey (Carter, 1958)

3. Study Habits Inventory (Wrenn, 1941)

4. College Adjustment and Study Skills Inventory (Christensen, 1968)

2. Cognitive Perspective: This is basically an information processing perspective. The assumption of this perspective is that individuals differ in the ways in which they acquire, store and retrieve information from memory. It recognizes the student as an active learner. This perspective believes that the efficiency with which information is processed influences the performance on tasks which measure learning on that information. Instruments have been developed to assess the extent to which students employ cognitive strategies in studying subject matter. For example, assessments are made of the extent to which students utilize such cognitive operations as: imagery, verbal elaboration, grouping, and cognitive organization in the study situation.

Some instruments included under this perspective are:

1. Study Behavior Questionnaire (Biggs, 1970a, 1970b)

2. Inventory of Learning Processes (Schmeck, Ribich, Ramanaiah, 1977)

3. The Learning Strategy Inventory (Dansareau, Long, McDonald and Atkinson, 1975)

4. Self-regulated Learning Strategies (Corno, Collins and Copper, 1982)

3. Motivational Perspective: This perspective is concerned with the affective and personality characteristics which influence students' approach to studying and learning. The literature has focused primarily on two dimensions, anxiety and attribution.

(a) Anxiety: The assumption is that a high level of anxiety interferes with a student's ability to study and learn efficiently. While it is acknowledged that a certain amount of arousal is positively motivational, excessive anxiety is viewed as being detrimental to learning. Excessive anxiety is believed to interfere with students' recall of prior learning in highly stressful situations. Instruments have been developed to assess the intensity of the student's preoccupation with negative feelings concerning examinations.

Some instruments included under the anxiety perspective include:

1. Suinn Test Anxiety Scale (STABS) (Suinn, 1969)

2. Worry-Emotionality Scale (Morris, Davis and Hutchins, 1981)

3. The Checklist of Positive and Negative Thoughts (Galassi, Frierson and Shorer, 1981)

(b) Attribution: The assumption is that the tendency to attribute academic success or failure to certain causes can generate feelings of competence or incompetence in students and affect their subsequent performance. For example, it is believed that individuals who have a high expectancy for success in achievement situations attribute

success to internal causes and failure to external causes. Instruments have been developed to assess the bipolar dimensions of student causal attributions for success or failure in academic settings.

Some instruments included under the attribution perspective include:

1. The Survey of Achievement Responsibility (SOAR) (Ryckman, 1985)

2. Academic Performance Attribution Scale (Corno, Collins and Copper, 1982)

(c) Self-esteem: The assumption is that the self-perceptions that students hold relative to their ability in certain subject areas influence their approach to studying and their performance in those subject areas. The evidence suggests that the higher the self-esteem, the more likely the student is to be successful. Noticeably absent are instruments which include self-esteem. Instruments need to be developed to assess students' self-evaluations for academic work, in general, and in particular subject areas.

4. Cognitive-Motivational Perspective: The assumption of this perspective is that student learning reflects an interaction between cognitive processes and motivaitonal states. Instruments have been developed to assess multiple dimensions of an individual as these relate to studying. The data generated by these instruments usually result in what may be called a "learning profile".

Some instruments included under this perspective are:

1. The Learning and Study Skills Inventory (LASSI) (Weinstein, 1982)

2. The Study Questionnaire developed by Pintrich (Pintrich, 1986)

Summary of Study Skills Research

Much of the study skills research has been focused on study techniques, methods and strategies and, as a result, most study skills results focus on these. However, increasingly researchers have begun to examine the cognitive processes which underlie effective studying and new instruments have been developed. Studies which have focused on study strategies have considered such techniques as: notetaking, underlining, summarizing, rereading, paraphrasing, structuring and time management (Dansereau, et al, 1979; Goldman and Wrenn, 1973; McKeachie, 1984; Lipsky, 1983; Snyder, 1984). Studies which have focused on cognitive processes have examined such mental operational constructs as: mental imagery, verbal elaboration, cognitive self-talk, grouping, cognitive organization, surface and deep processing (Rickards and Friedman, 1978; Anderson and Arbruster, 1982; Weinstein, Zimmerman and Palmer, 1985; Entwistle and Ramsden, 1982; Schulte and Weinstein, 1982; Biggs, 1979; Svensson, 1977; Morton and Saljo, 1976; Pressley and Levin, 1977; Rohwer, Raines, Eoff and Wagner, 1977; Waters, 1982).

The cognitive approach to analyzing study skills is based on information processing models. It recognizes that the student is an active learner with an enormous capacity for cognitively manipulating the information he/she studies. It does not seek to negate the importance or usefulness of study strategies but provides a bridge between the mechanistic, observable behaviors involved in studying and the performance outcomes which are observed. In other words, cognitive research in study skills offer hypothetical constructs as variables which intervene between observable study behavior and performance outcomes. Instruments have been developed to verify and assess these results. Certainly, research on cognitive processing in the study skills literature has contributed

substantially to a better understanding of the processes underlying learning behavior and outcomes.

However, a void continues to exist in the literature. This void relates to the dearth of studies which combine the three perspectives, behavioral, cognitive and motivational, in a comprehensive and thorough analysis. Furthermore, while the behavioral and cognitive perspectives have been adequately treated, the motivational perspective has been addressed rather sparingly.

The inadequacy of research investigating the relationship between the motivational characteristics of students and their study behavior, is reflective of the deficiency of many study skills instruments in not including items on relevant motivational variables and particularly on self-esteem, performance attribution and anxiety. The review of available study skills instruments indicate that most of them tend to focus on study techniques, cognitive processes underlying study techniques or both. Few include items on self-esteem performance attribution or anxiety. Yet these variables have been found to be significantly related to achievement and known to be partially significant for black students. these three variables are embedded in the Self-Assessment Questionnaire (SAQ) developed by our group at Yale. The literature on these three variables is summarized below:

<u>Self-esteem</u>

The evidence linking self-esteem to behavior in general and to academic performance in particular is complex and inconclusive (Wattenberg and Clifford, 1964; Parloff and Datta, 1965; Brookover, 1967; Coopersmith, 1967; Purkey, 1970; Olson, 1970; Haplin, Haplin and Torrance, 1984; Hatcher, Felker and Triffinger, 1984; Shavelson, Hubner and Stanton, 1976; Sprigle, 1980; Marsh and Jackson,

1984; Marsh, Parker and Barnes, in press). Self-esteem is defined by Coopersmith (1960, 1967) as the evaluation a person makes of him/herself. Diaz (1984) observed that "self-esteem implies the maintenance of self-evaluation, expresses an attitude of approval or disapproval, and indicates whether or notthe person believes her/himself to be capable, significant, successful, and worthy." Branden (1969) defines self-esteem as "a standard by which a person judges her/himself, an estimate, a feeling and an emotion."

Self-esteem as a concept provides a framework within which to understand a person's adjustment to the environment. It encompasses a person's perceptions, feelings, attitudes and a plethora of inner emotions which have been shaped by a person's experiences and environment, successes and failures, reinforcements and punishments (Gelford, 1962; Herbert, Gelford and Hartman, 1969; Van Tumer and Romanaiah, 1979; Power and Little, 1981; Brockner and Wallnau, 1981). A person's self-esteem may be viewed as an internalization of the many reflections of him/herself that a person receives from significant others: parents, siblings, peers, teachers and other adults (Cooley, 1902; Springle, 1980). Negative or positive feelings about one's self in a given situation influences one's adjustment in that situation. As was pointed out earlier, many students experience difficulty in school, not because of low intelligence, lack of ability or even lack of effort but because they have made the assessment that they are incapable of performing well. Somehow, somewhere, from someone they received a negative message about their capability, internalized it, believed it and it has become a self-fulfilling prophecy.

The ubiquitous influence of the self-esteem on students' attitudes and approach to studying is conceivably no less strident than it is in other areas of behavior and school performance. In fact, any evidence linking self-esteem

to study behavior may provide the missing link between self-esteem and achievement. The research, as earlier discussed, shows that self-esteem is significantly related to achievement but it does not proffer a cause-effect relationship and does not provide operational explanations as to why a negativeself-esteem gets translated into poor grades or low scores on tests. It may be conjectured that a student who has a low academic self-esteem spends less time studying and studies less efficiently than a student with a high academic self-esteem, therefore, cognitively processes academic information in an inferior fashion, with the result that he/she performs more poorly on academic tasks. The same individual, however, may have a high athletic self-esteem, spends much time training and practicing, develops and enhances his/her athletic skills with the result that he/she excels on athletic tasks.

Research on the dimensionality of the self-concept clearly indicates that it is multidimensional (Shavelson, Hubner and Stanton, 1976). Self-esteem is the self-evaluative component of self-concept in specific situations and is itself multidimensional. Each specific dimension of self-esteem better predicts performance in the area cover by that dimension than do other dimensions or global self-esteem measures. Not only does self-esteem of academic ability better predict academic performance than do global self-esteem measures, but self-esteem of ability in specific subject areas such as math, science, reading, English and so on better predict performance these areas than a general measure of self-esteem of academic ability (Brookover, 1967; Shavelson, Hubner and Stanton, 1976; Marsh and Jackson, in press). Given the specificity of the nature of the relationship between self-esteem and academic performance, it follows that a similar kind of relationship may exist between self-esteem and study behavior. A student who has a positive math self-esteem may spend more

time studying math and may study math more efficiently than a student who has a negative math self-esteem. On the other hand, a student who has a negative science self-esteem may spend less time studying science and study science less efficiently, with the result that he/she continues to perform poorly on science tasks.

Self-esteem, as noted earlier, is influenced by the environment. An accumulation of experiences over time and in different situations results in the development of a multidimensional view of the self. Lowe (1961) proposed that some dimensions of self-esteem are peripheral to the self and are changeable whereas other dimensions are more central and less changeable. Diggory (1966) and Ludwig and Maehr (1967) found that success and failure in particular tasks can lower or raise the self-esteem of ability for those particular tasks and generates a ripple effect toward other tasks. Purkey (1970) asserted that the most important assumption that underlies modern themes of the self is that the maintenance and enhancement of the self is the motive behind all behavior. Each person then seems to improve and enhance the self of which he or she is aware. If this then is true and since the environmental forces which lower or heighten self-esteem are known, Lowe's (1967) dichomoty of the self-esteem into changeable and unchangelable dimensions notwithstanding, students can be assisted to feel better about themselves in relationship to their academic ability generally and inspecific areas in particular. This, in turn, may change their study habits and study attitudes, increase their study efficiency and improve their performance on academic tasks.

Performance Attribution:

Performance attribution is a motivational concept that is akin to Rotter's (1966) locus of control construct. Locus of control refers to an individual's

belief about whether events in the individual's life are controlled by events external to the person either external to the person or internal. Performance attribution refers to the tendency to attribute a behavioral outcome to internal or external causes. Evidence exists to show that it is a consistent character trait which influences many aspects of an individual's behavior (Bernstein and Stephens, 1979; Bar-Tal and Darom, 1979; McMillan and Sprat, 1980). Weiner(1972, 1974, 1979, 1980) proposed a three dimensional model of attribution. Each dimension is bipolar. The dimensions are (1) locus (internal-external) (2) stability (stable-unstable) (3) controllability (controllable- uncontrollable). Thus, there are eight (2x2x2) types of causual attributions which individuals can make with regard to behavioral outcomes.

For example, ability is classified as an internal, stable, uncontrollable attribution. Luck is classified as an external, unstable, uncontrollable attribution. Effort is classified as an internal, unstable, controllable attribution. These are represented in the grid below:

	Internal		External	
	Controllable	Uncontrollable	Cotrollable	Uncontrollable
Stable		Ability		
Unstable	Effort			Luck

Marsh (1984) in comparing locus of control and attribution theories noted that attribution theories place more emphasis on causes (e.g., ability, luck,

effort) or outcomes and place greater stress on the effects of situational variables which can be experimentally manipulated. This distinction is important to the purpose of this paper because it suggests that attributional disposition can be changed and that the effects of changed attributions on subsequent behavior can be systematically studied.

Attributions for academic outcomes have received considerable attention and study. Recent studies have indicated that attributional disposition is significantly correlated with academic outcomes (Fagan, et al, 1983; Marsh, 1984; Edwards and Waters, 1981; Powers and Rossman, 1983; Griffin, 1983). Attributional disposition has also been found to be significantly related to other personality variables such as self-esteem and locus of control (Edwards and Waters, 1981; March et al, 1984). Most importantly, the types of attributions that students make for success or failure have been found to generate feelings of shame, guilt, pride, competence and incompetence in particular subject areas. Weiner et al (1978, 1979) found that ability attributions were linked to feelings of incompetence (given failure) and confidence (given success). Effort attributions were associated with guilt (given failure) and pride (given success). A student who feels incompetent in a given subject area is much less likely to be motivated to study that subject matter than one who feels competent. On the other hand, a student who feels guilty about failing because he/she thinks that he/she did not study enough is likely to increase his/her study efforts to do better in order to remove that guilt.

Covington and Omelich (1979a, 1979b, 1979c) proposed a very interesting interpretation of the relationship between ability and effort attributions for success and failure and affective outcomes. They argued that individuals try to

maintain a self-esteem of high ability because of society's tendency to equate personal worth with the ability to achieve. They hypothesized that failure, despite great effort, is strong evidence of low ability and should result in shame and not guilt as proposed by Weiner. A number of articles have been written debating which casual attribution effort or ability results in which affect, shame or guilt (Weiner and Kukla, 1970; Sohn, 1977; Nicholas, 1975, 1976; Weiner, 1979; Covington and Omelich, 1979a, 1979b, 1979c; Brown and Weiner, 1984; Covington and Omelich, 1984a, 1984b, 1984c, 1984d). Although the views of the researchers differ in terms of whether it is the ability or the effort ascription for failure that results in shame or guilt, they all agree that causal attributions for success and failure do have an emotional impact on the student who makes these ascriptions. Whether or not an effort ascription for failure in a subject area results in shame or guilt, the motivational effect is likely to be the same. The person who feels guilt attempts to remove that guilt just as the person who feels shame. The best way for a student who has failed an examination to remove guilt or shame is to do better on the next examination. This means to prepare better through more diligent study.

Further evidence of the competent-incompetent feelings generated by ability attributions for success and failure was provided by Diener and Dweck (1978, 1980). They reported that children who appeared helpless in a task verbalized ability attributions when they failed, while children who did not appear helpless, verbalized effort attributions. Thus, it seems that children who attribute failure to low ability tend to develop feelings of incompetence and manifest a learned helplessness syndrome. They refuse to continue to try. These children are at risk for experiencing continued failure and should be identified and assisted to overcome their feelings of incompetence. Their

ability attributions for failure can and should be changed (Dweck, 1975; Dweck and Reppucci, 1973).

Ability attribution is an internal, stable, uncontrollable attribution. This means that a person who perceives his/her failure in a subject area as being due to a lack of ability believes that he/she is inherently incapable of succeeding in that area and and, therefore, can do nothing about failing. He or she is destined to fail. Effort attribution, on the other hand, is an informal, unstable, controllable attribution. This means that a person who perceives his/her failure in a subject area as being caused by a lack of sufficient effort, believes that since effort comes from him/her (internal) and can be changed and controlled (unstable and controllable), then he/she can do something about failing. He/she can, in fact, exert more effort to succeed. Exerting more effort very often means changing one's study habits attitudes and methods. Clearly, it is important to be able to change students' attributional dispositions from ability ascriptions for failure to effort ascriptions. To get them to the awareness that they can improve their academic performance by exerting more effort, that is, by altering their approach to studying.

Anxiety

A substantial body of literature exists linking excessive anxiety on the part of students to poor performance on academic tasks (Spielberger, 1966; Sieber, O'Neil and Tobias, 1977; Morris, Davis and Hutcins, 1981). Tobias (1979) observed that anxiety being an affective state indirectly impacts the cognitive processes which mediate learning at different stages. Anxiety, according to Tobias, impacts learning at the preprocessing stage by interfering with the degree to which external stimuli are registered, at the processing stage by directly affecting the processing of information relative to task

difficulty, reliance on memory and task organization, and at the postprocessing stage relative to retrieval.

The literature indicates that high anxiety students perform lower than their low anxiety counterparts in situations involving evalutative stress. When stress is reduced the differences among high and low anxiety students disappear. Thus, being highly anxious in and of itself does not appear to lead to low performance but rather it is the interaction between high anxiety and stressful conditions.

Sarason (1972) and Wing (1971) have explained the influence that high anxiety has on student achievement behavior by hypothesizing that high anxiety students split their attention between task demands and negative self-preoccupations while low anxiety students devote a much greater proportion of their attention to task demands. Tobias (1985) pointed out that interference by high test anxiety is inferred from performance on examinations by high-anxiety students. However, he noted lower test scores of high-anxiety students could be due to less efficient acquisition of information (study skills deficit hypothesis), by interference in the retrieval of previously learned material (interference hypothesis) or by a combination of both.

Tobias (1985) proposed that a careful review of studies which examined the acquisition-retrieval distinction should be undertaken before any definitive statements could be made concerning the influence of anxiety on learning. He reviewed a number of studies (Wendell and Tobias, 1963; Tobias, 1984a; Tobias, 1984b and Tobias and Sacks, 1984). He concluded that two of the studies offer evidence that test anxiety interferes with the retrieval of previously learned material. However, Tobias cautioned that further research was needed to clarify the effects of interference on learning and recall.

Summary

Study skills research has progressed within the past ten years from being primarily concerned with overt and observable study behaviors to an examination of cognitive and motivational processes underlying student learning and achievement outcomes.

Despite the progress, however, there is still need for a more comprehensive approach which integrates the behavioral, cognitive and motivational perspectives. Some attempts have been made in this direction but to date no researcher has succeeded in developing an instrument which adequately integrates all three perspectives.

As human beings, students are filled with feelings and emotions. The parasympathetic nervous system is an integral part of the central nervous system. It provides the fuel which motivates and directs behavior. It cannot be ignored. Therefore, for a psychology of studying to be a valid, useful, meaningful and tenable branch of psychology or even to be deserving of serious consideration, it must address the question of students' emotional involvement in what they are studying. As Boykin (1979) noted, psychological verve plays an important role in the academic achievement of black children.

"How do students study?" then is not as shallow a question as it may appear. It encompasses physical behavior, cognitive-intellectual and affective-emotional dimensions. Study instruments, therefore, should not be shallow. They should not focus only on the behavioral or the cognitive but must include the affective. A methodological step in the development of good study skills in students is a componential analysis of study skills. The Yale group has been working on the development of the Self-Assessment Questionnaire (SAQ) which represents an attempt to offer a complete study instrument, one that

includes all three dimensions, behavioral, cognitive and motivational and the development of which has been based on a sample of balck students. The term "study skills" is indeed somewhat misleading. The word "skills" suggests something that is readily observed. Study skills instruments, therefore, tend to be limited by this connotation. The SAQ avoids the use of the word "skill" or even the word "study". Self-assessment connotes an examination of the total person, a three dimensional view. The SAQ, therefore, offers a new approach to study "studying". It attempts to provide the needed integration among the three perspectives and specifically includes items which assess self-esteem, performance attribution and anxiety, values agreed to be especially important among black students.

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